

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
23 June 2005 (23.06.2005)

PCT

(10) International Publication Number
WO 2005/057822 A1

(51) International Patent Classification⁷: **H04J 13/02**, H04Q 7/38, H04B 7/204

(72) Inventors; and

(75) Inventors/Applicants (for US only): JUNG, Soo-Jung [KR/KR]; 368-18 Jangdae-dong, Yuseong-gu, Daejeon-City 305-308 (KR). KIM, Kwang-Soon [KR/KR]; Hana Apt. 109-1203, Sinseong-dong, Yuseong-gu, Daejeon-City, 305-345 (KR). RYU, Byung-Han [KR/KR]; Hanvit Apt. 118-604, Eoeun-dong, Yuseong-gu, Daejeon-City, 305-755 (KR).

(21) International Application Number:
PCT/KR2004/002279

(74) Agent: YOU ME PATENT AND LAW FIRM; Seolim Bldg., 649-10, Yoksam-dong, Kangnam-ku, Seoul 135-080 (KR).

(22) International Filing Date:
8 September 2004 (08.09.2004)

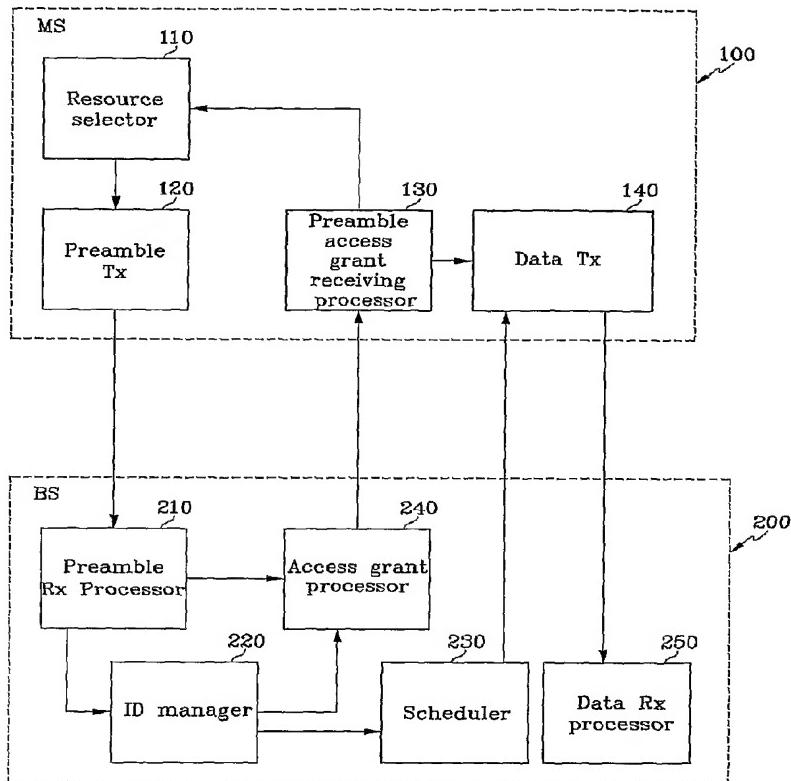
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH,

(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data:
10-2003-0090149
11 December 2003 (11.12.2003) KR

(71) Applicant (for all designated States except US): ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE [KR/KR]; 161 Gajeong, Yuseong-gu, Daejeon 305-350 (KR).

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR TRANSMITTING RANDOM ACCESS DATA USING ORTHOGONAL FREQUENCY DIVISION MULTIPLE ACCESS



(57) Abstract: Disclosed is a random access data transmission system and method using OFDMA. The system includes a scheduling ID into an access grant on a preamble for a random access, and transmits it together with an acknowledgment or a non-acknowledgment of the preamble, a base station uses the scheduling ID to notify the mobile station of a random access data transmittable time and a data transmission channel through a control channel, and the mobile station transmits a preamble in advance. After receiving a transmission assignment instruction corresponding to a scheduling ID through the control channel, the mobile station transmits random access data through an assigned channel.

WO 2005/057822 A1



PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

- (84) **Designated States (unless otherwise indicated, for every kind of regional protection available):** ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.